

Reach Them



to Teach Them

Four high school teachers show that teaching adolescents is about relevance and challenge, affection and respect.

Carol Ann Tomlinson and Kristina Doubet

Two observations from teachers of adolescents are so prevalent these days that they sound like theme music. The more recurrent refrain says that there's no time for covering anything in high school classes other than curriculum or standards: There's no time for discussion, for student interests, for products beyond mandatory quizzes and tests, or for activities. Teachers are under relentless pressure to prepare students for high-stakes tests and for advanced placement or International Baccalaureate exams. The amount of material to cover simply exceeds the time available for covering it.

The second refrain has to do with the impracticality—if not impossibility—of really knowing one's students in a high school setting. There are too many of them, and they are indifferent—or ill-behaved. Combined with the avalanche of pressure for high test scores, these factors make it unfeasible for teachers to know their students more than superficially.

Snapshots of four high school classrooms challenge these two pervasive beliefs. We profile four teachers who connect with their students and who persevere in making learning a process that engages the minds and imaginations of the adolescents they teach. These teachers' professional work centers on knowing their students well enough to make learning interesting and on knowing their content well enough to shape it to their students' needs. These snapshots serve as an antidote to the very real pressures that can make us forget what lies at the core of transformational high school classrooms.

Katie Carson's Classroom:

A Labor of Love

Katie Carson, a fifth-year teacher at Fauquier High School in Warrenton, Virginia, teaches English to 9th and 11th graders. She is a young teacher who spends some of her free time acting in and directing a comedy improvisation troupe in Washington, D.C. But teaching is her labor of love.

With the exception of a few overachievers in each class, says Carson, kids in high school "have zero desire to learn more about grammar, literature, and punctuation." The magic of early experiences with reading and writing is gone. "So unless I create a class in which they discover one another's gifts and challenge one another, or unless they have a relationship with me," she adds, "students have no desire to learn those things."

Getting to Know One Another

Carson creates an environment in which students learn about one another and get to know their peers' strengths. She places students in groups in which they'll work for a quarter of the year. Once a week, on a randomly selected day, she gives the groups five-minute challenges, such as building the tallest tower in the class out of bits of paper and paper clips. You can hear students saying among themselves, "We need Steven for this job. He's the man!" This kind of focus is particularly important for students who are not initially seen as academic contributors.

The room is set up to welcome students, who can sit in armchairs, on a couch, or at tables. Carson also studies learning preferences and gives students opportunities to learn in ways that meet their various needs. "It's part of showing respect," she says.

Attendance-taking begins with an "attendance



Photos courtesy of Kristina Doubet

Katie Carson has her students verify the credibility of a science fiction Web site that promotes the use of aluminum hats as a means of preventing mind control. Activities that engage students while teaching them the content are common in her class.

question" as soon as the bell rings. As Carson calls their names, students respond to the day's question, providing a brief justification for their responses.

"OK, people, this is a big one today. Definitive answer. Coke or Pepsi?" On another day, she begins, "OK, folks, you've just been given a sampler box of Russell Stover candy, but the map is missing. You bite into a piece and much to your dismay, find you've chosen a _____." Students answer by filling in the blank. Before long, students bring her slips of paper, whispering, "Here's an attendance question. It's really good!"

Sharing Stories

Carson encourages students to tell their own stories. "I'll even delay a test for a

few minutes for a good story," she says, "but it has to be a good one." On the first day of class, she puts on the board a story arc, which contains seven numbered lines:

1. Once upon a time . . .
2. And every day . . .
3. Until one day . . .
4. And then . . .
5. And then . . .
6. Until finally . . .
7. And ever since . . .

This is her way of teaching students about exposition, rising action, conflict, climax, and denouement. Teacher and students use the academic words in their conversations about stories, but the story arc serves as a barometer for assessing the stories that they share with one another. "You all have experi-

ences that make good stories," she reminds the students. "But it's all in how you tell them."

Mastering the Content

Carson embeds the required content standards in her instruction, but the students feel that she's teaching them, not just "covering material." In a recent Utopia project, nearly all her juniors said that they would do away with state standards if they could. "What's the point?" they asked, and they lamented the number of times their teachers say, "Now you'll need to remember this because it's on the standards test."

Carson reminded those juniors that this was, in fact, a standards test year and that in three weeks, they would be taking the standards test in her class.

"Yeah, but you don't bring it up all the time," they responded. "You prepare us without teaching to the test."

This is evident in a unit on 19th century American poetry. As the students compare various poems with artwork and photographs, Carson presents a quotation from a British author indicating that Americans have no literature. The students argue heatedly against the author's sentiment, using works that they have read as evidence to the contrary, and they ask whether they'll be able to "critique more artwork" after lunch.

Making Writing Relevant

When her class discusses a golden age of literature, Carson asks students to describe golden ages in their own lives and uses their descriptors as a segue into a serious discussion of literature. She notes,

My job is to make sure the kids know that I care, that I appreciate their sharing the truth about their lives, and that I value their opinions. When we have that personal trust, it's not so horrifying for them to write and turn that writing in to me.

Too often, she says, writing in high school is an exercise of turning in a paper to get it back covered with red marks. We forget, she suggests, how important it is for students to know that they have stories to tell and that those stories are full of discoveries about human nature.

Ned, for example, was a low-achieving student who did not—would not—write. Then he made the junior varsity football team. Carson told him that she was impressed because she'd never understood football. "Gosh," he said, "you must be dumb." For the rest of the year, he wrote about football in his journal, and she wrote back about football. In passing, she would mention in class that she had watched part of a game on TV or at school. "I understood why the flag was thrown. Thanks so much, Ned!" His stories had helped someone—and he was proud. ♦

George Murphy's Classroom:

It's All About Inquiry

As students enter George Murphy's 10th grade biology class, he chats with them individually about their reading and experiments. Murphy is science department chair at Fauquier High School in Warrenton, Virginia, and has taught for 24 years. When class begins, he proclaims, "Welcome to your favorite class of the day!" Students grin as he launches into the daily agenda posted on the board. There's a sense of urgency and excitement about the class: Important work is waiting, and there's no time to waste.

Demonstrating Understanding

The current science unit centers on energy and respiration. Murphy has embedded the key understandings in an exploration of diet and energy. He begins the unit with an interactive demonstration that introduces the key

concepts of energy, action, and reaction. Students observe a new piece of equipment—an empty fermentation apparatus—and they hypothesize about its possible use. Their ideas initiate a demonstration of a basic working fermentation setup. Once students are clear about what is required for fermentation, they launch into an inquiry process to determine what caused the reaction they witnessed in the demonstration. Murphy carefully guides the process to be sure that students "get it" before they design their own experiments, in which they will pose and test a hypothesis about the nature of energy. Murphy's students demonstrate their understandings about energy both by completing a lab report and by creating a product that they choose from a list of teacher-provided and student-designed options.



In George Murphy's biology class, students construct concept maps or metaphors as a unit summation activity. Murphy's instruction emphasizes inquiry and community.

Students select one of three tasks to continue learning about energy: Some students finish their experiments; some work with a study guide on the topic; and others work on laptops to complete a diet planner, an exercise that helps them analyze energy consumed and energy expended in their own lives.

There is no class textbook. Instead, Murphy guides students in finding authentic and reputable information sources, in print or on the Web.

Very real pressures can make us forget what lies at the core of transformational high school classrooms.

Making It Relevant

Inquiry is at the root of Murphy's instruction. "I think everything in biology should be relevant to what students experience in their own lives," he says. "It's the study of life, so a student should be able to connect biology with everything we do."

He tells his students that if they can't see how a given topic connects to their lives, they probably shouldn't be studying it—either because it's not biology or because he hasn't clearly communicated the essence of the topic. He realizes that he must sometimes reteach material in new ways to help students find that connection. "We can talk about the ATP cycle, photosynthesis, and respiration, but that doesn't grab kids," Murphy says. What *does* rouse their curiosity is analyzing the foods they're eating and burning and figuring out the caloric content.

Murphy teaches his students on a half-year block schedule. That constricts the time he has to get to know them, so he makes his curriculum and instruction

compelling from the start.

He explains,

It's not the standards that will make school relevant and vital for students. I want to get them interested in what they're doing. I'm not up front to dance for them. I want to present the students with a challenge, see them rise to the challenge, see them *want* to learn. I want to dare them to have a good time with science.

Probing Student Thinking

Murphy moves among the students as they work with absorption on their tasks. Two girls who are using computers and the Body Mass Index (BMI) instrument to work on their diet profiles commiserate with him about their results, declaring that switching from whole to low-fat milk is doable but that giving up cookies in exchange for fruit is asking too much. A sturdy football player tells Murphy, "That's two pieces of bad news today. I have to lower my carbs—and I love carbs. I also have to lower my fat, and that stinks." Another boy is searching on the Internet for a formula that he believes could call into question the figure generated by the BMI device. Two girls discuss the feasibility of "fooling" the instrument by combining their weights.

Two boys in the design phase of their experiment explain their hypothesis and how they arrived at it and then return to a discussion about what amount of glucose and water will work best in their experiment. A boy working with the study guide talks with Murphy about his topic, his research, and the Internet itself.

That Murphy engages both the interest and trust of his students is evident in the purposefulness of the classroom, in the respectful exchanges between Murphy and his students, and in the spirit of cooperation among the students themselves. As the students learn about biology, they discover its capacity to reveal life and to help them develop as thinkers. His instruction has nothing to do with coverage—it's about inquiry and community. ♦

Chad Prather's Classroom:

Making Connections

Chad Prather is a second-year teacher who teaches 9th graders world geography and world history at Charlottesville High School in Charlottesville, Virginia. Most of his world geography students read well below grade level, and they have little motivation to learn. Says Prather,

These students haven't been celebrated throughout their education. They've gotten used to tracking and very used to worksheets. When teachers give them something challenging, the students rebel because they're so used to worksheets that [the new assignment] just seems too hard.

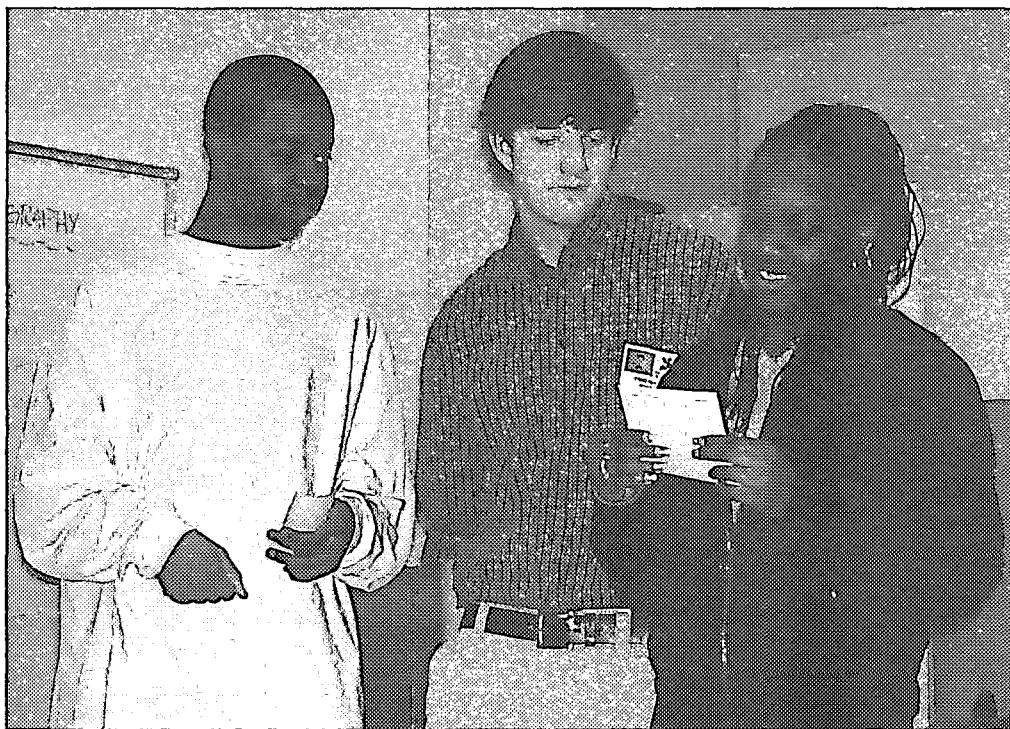
Prather finds this situation tragic and is determined to show the students their untapped potential.

He's discovered that success lies in making two kinds of connections: connecting students with important ideas and establishing his own connection with students as individuals.

Connecting With Ideas

Prather organizes curriculum around key concepts rather than memorization of facts. Too much of what goes on in school, he believes, is focused on knowledge rather than on understanding. Knowledge, he says, may get students to answer "who" and "what" questions on a state test, but it falls short of helping them answer the more meaningful "how" and "why" questions. He adds,

Teachers have given these kids worksheets over the years in the hope that the worksheets would pound knowledge into their heads, that repetition would create memory. It doesn't. No one expects these students to understand. I tell them that I won't give them what they're used to. They need to step up to the challenge of understanding. Then the knowledge will take care of itself.



In Chad Prather's geography class, students play a vocabulary game that requires teamwork but also rewards individual success. Prather strives to connect students with important ideas.

Prather's students work with units that raise important ideas in geography. The unit on space and interaction, for example, probes how humans adapt to and alter the environments in which they live. He explains,

When I prepare a lesson, I try to imagine myself as one of my students, and I ask myself—as though I were that student—Is this an engaging use of my time? Then I ask myself—as the teacher now—Is this an effective way of demonstrating meaning?

Connecting With Students

Prather says that connecting with his students is even more important than his sustained work to connect his students with the curriculum. "I had the idea early on," he says, "that if I were assertive and hard-core with the rules, then the students would work hard for me." That's not proven to be the case. What *does* work is connecting with students. Not only does it more successfully get them to work, but it also encourages them to accept living within the classroom rules. "The curriculum

that I write has to come from a place that the kids are comfortable with," says Prather. "And that obviously starts with the teacher-student relationship."

The world geography class begins with a review that prepares students for a brief Jeopardy-like game. "I don't hear all of you reviewing," prompts Prather, "and that gives me great displeasure. My heart is breaking as though it were the Earth's crust during plate tectonics." Students grin and begin reviewing individually, in pairs, or in small groups. In the 10-minute Jeopardy game that follows, excitement builds to a pinnacle when an unlikely student selects and correctly answers a 1,000-point question. The class erupts in whoops of joy and praise.

Prather quickly transitions to a slide presentation designed to give his students images of the Earth's power. He understands that the process of a hurricane forming over an ocean means little to his students because most have never seen the ocean. He gives them cues about what matters most for them to understand, and he emphasizes the

relationships, causes, and effects among the ideas depicted in the images.

Students move next to their "Thug Nasty Big Eartha" projects. For the unit's final product, students are asked to assume the role of lead producer of a new CD and select a project from a number of options that demonstrate that the Earth is a "thug nasty" place. Some students choose to write the lyrics for the hit single, "Big Eartha's House"; others may choose to design the CD cover. All product options focus on the Earth's power. "It's hard-core," says Prather. "It doesn't back down." Students look at ways in which the Earth exerts its supremacy, especially in terms of extreme weather and climatic forces. Students use

teacher-provided grids to take notes on "molten hot performers," such as Twisted Sister (tornado), Dry Bones (drought), and Grand Rapid (flood). Each product choice has a checklist for success, and all choices focus on the important information and ideas from the unit. Product options address varied student interests and learning modes.

In class, students work on their products as their teacher walks among them, coaching them. Because many of Prather's students have difficulty completing schoolwork at home, he and some colleagues provide a place in school in the afternoons for the many students who need time, space, and support for their work.

Prather knows he has much to learn about his students and about how best to connect them with ideas that they thought were out of their reach, but his students send him signals that he's working in the right direction: They talk with him about issues related to race and school, write him thank-you notes, and come by his classroom to share their successes. ♦

Lori Mack's Classroom:

Making All Students Count

Lori Mack, a veteran teacher with 18 years of experience, teaches 12th graders human anatomy and physiology at Charlottesville High School in Charlottesville, Virginia. Her culturally diverse seniors have varying reasons for taking the class but, according to Mack, share a lack of science background and skills.

Affection and Respect

As students filter into class, Mack chats with them about their day in an easy but businesslike way. "Are you ready?" she asks the students, with a hint of fun in her eyes as she finishes taking attendance.

"Ready," they respond with certainty—all but one of them. Mack addresses her: "I know you're tired, but try to hang with me, will you?"

"I will, Ms. Mack, I'm listening," the student responds earnestly.

The teacher nods and explains to the students that her plans for the day have changed. Their previous day's work indicates a need to revisit some of the unit's key concepts. They'll watch a brief film to help them think about the concepts in a different way and then work in groups to create a skit that demonstrates the concepts in action. The students are clearly interested.

"Guess what we'll be talking about in the video and skits," the teacher prompts enthusiastically.

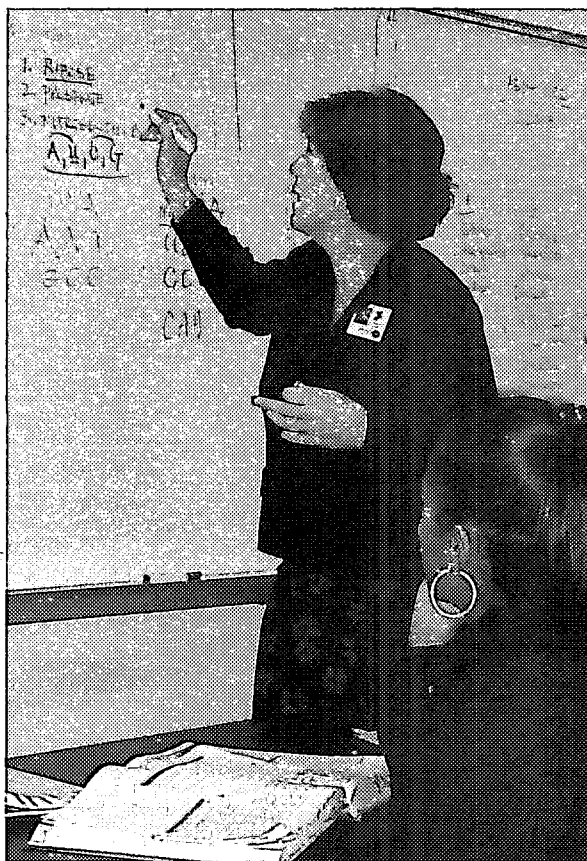
"Diffusion?" offers one student.

"Yes, diffusion!" Mack exclaims with relish.

"Osmosis?" suggests another.

"Osmosis!" she affirms with an almost religious fervor—arms flung in the air, face turned upward.

Students grin and keep guessing. "Homeostasis?"



Lori Mack teaches a lesson that connects genetics to her students' lives. Her teaching shows her passion for science.

"Yes! Homeostasis! It's a *beautiful* thing!" Mack exclaims.

As students interact with her, she circulates around the room, patting one student on the back, encouraging others, and never missing a beat with the discussion. "I'm a person to my students," says Mack. "Making myself personable allows them to be a person back. There has to be an exchange of personhood."

"The video," she continues in a hushed voice, "is called *The Magic of Cells!*"

Mack prompts students to look for the important things as they watch the video. "Don't write down stupid little facts. Rise above it!" Throughout the film, she coaches students on their note-taking skills. "Don't get so caught up in writing that you miss the cool stuff. You

need to see what it means!" Then, "You can do this! You can do this!" She draws students' attention to a demonstration on the video. "See, this is what *semipermeable* looks like. Do you understand better now?" She sighs with love every time homeostasis is mentioned. The students chuckle but never stop paying attention to the film.

As the film ends, the teacher gives her students a "two and two"—two minutes to check the accuracy of their notes against the notes of two other students. As they do this, she again walks among them. Her language is endearing. "You gotta get with it," she says playfully to a student who has forgotten something. "Think you can hang?" she asks another. Her affection for the students is returned to her in kind. She also shows respect, persistently expecting—and demanding—high-quality work.

Mack then divides the students into teams and writes the names of the members of each team on the board. She deliberates aloud about who should be in which group. In truth, she has already developed the teams as part of her planning, but she has found that when the students hear her musing about her decisions, they understand her reasoning and don't question the composition of the groups. This process encourages their trust in her. Also, she says, it gives them time to adjust to working with whoever is on their team, removing the element of surprise and the balking that can follow.

A Community of Learners

The students are absolutely "into" their group work. They exchange ideas, revise those ideas, and build on one another's thoughts with ease. Comments indicating serious thought are evident around the room: "So, how are we going to demonstrate this part of

the process?" "Am I supposed to move in and out constantly, or does something trigger my movement?" "Oh, so that's when we'll flip our signs to become the vacuoles!" "No, look at page 417. That's not what it says."

Students rehearse their presentations and revise them as the teacher probes and sharpens their thinking. One group has their demonstration as finely choreographed as a dance and asks, "Ms. Mack, can we present today?" Mack tells them that presentations will begin during the following day's class. Satisfied, one student in the group replies, "OK, then we'll practice again."

As announcements signal the end of the period, Mack reminds her students to clean up because it's not her job to do so. She uses a chance exchange to explain the difference between *may* and *can*. When one student becomes a bit loud, she holds up a ruler and says,

"Let me measure how much you're ticking me off right now." He smiles and settles down.

As the bell rings, the teacher stands in the doorway and makes a personal comment to each student. Some comments are playful and some are serious, but it's evident that each student appreciates the connection.

"My forte, my passion, my love is creating a learning environment in which everybody feels safe, able to succeed, and important," says Mack. "In this class, nobody gets to be invisible." ♦

Lessons Taught and Learned

In a time when it's easy to reduce curriculum to coverage and to see students simply as takers of tests, these four teachers remember the important lessons about teaching and learning for adolescents. It's difficult for us as

teachers to engage adolescents with a curriculum that has little impact on their lives. It's difficult to make curriculum relevant to lives that we don't understand.

"It's the best job in the world. Of course, it frustrates me to no end," says Mack. "I scream and rant and rave. I get exhausted. But what an incredible ride, to be able to hang out with these kids, to be able to watch the transformation."

And transformation is really what teaching is all about. ■

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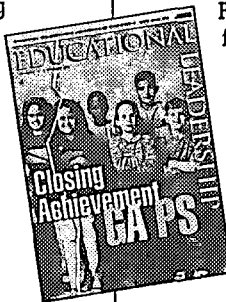
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